

WHAT IS CLAIMED IS

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1. An image extraction method comprising:
a first image pickup step to pick up an image
of an object positioned in front of a background
using wavelengths in a visible light region;
10 a second image pickup step to pick up an image
of the object positioned in front of the background
using wavelengths in an infrared region; and
an extracting step to extract only the object
based on the images picked up by the first and
15 second image pickup steps,
wherein at least a surface of the background is
formed by an organic dye.

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2. The image extraction method as claimed
in claim 1, wherein said extracting step extracts
the object from the image picked up by the first
25 image pickup step depending on color, and extracts
the object from the image picked up by the second
image pickup step depending on luminance.

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3. The image extraction method as claimed
in claim 1, wherein said organic dye has a color
selected from a group consisting of blue-green color,
35 gold color and silver color.

5 4. The image extraction method as claimed
in claim 1, wherein said organic dye is selected
from a group consisting of cyanine organic dyes,
phthalocyanine organic dyes, and azo organic dyes.

10 5. An authentication apparatus
comprising:
a first image pickup section to pick up an
image of an object positioned in front of a
background using wavelengths in a visible light
15 a second image pickup section to pick up an
image of the object positioned in front of the
background using wavelengths in an infrared region;
an extracting section to extract only an image
20 of the object based on the images picked up by the
first and second image pickup sections; and
a matching section to compare the image
extracted by the extracting section and registered
as an authentication result,
25 wherein at least a surface of the background is
formed by an organic dye.

30 6. The authentication apparatus as
claimed in claim 5, wherein said extracting section
extracts the image of the object from the image
picked up by the first image pickup section
35 depending on color, and extracts the image of the
object from the image picked up by the second image
pickup section depending on luminance.

7. The authentication apparatus as
claimed in claim 5, wherein said matching section
outputs the comparison result by comparing an
average of the image of the object extracted by the
5 extracting section from the image picked up by the
first image pickup section and the image of the
object extracted by the extracting section from the
image picked up by the second image pickup section,
and the registered object images.

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8. The authentication apparatus as
15 claimed in claim 5, wherein the organic dye has a
color selected from a group consisting of blue-green
color, gold color and silver color.

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9. The authentication apparatus as
claimed in claim 5, wherein the organic dye is
selected from a group consisting of cyanine organic
25 dyes, phthalocyanine organic dyes, and azo organic
dyes.

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